**Course Syllabus Rauzon**

**Physical Geography Lab**

Course Description:
This lab supplements Physical Geography 1 through the practical application of concepts conveyed in the physical geography lectures and should be taken concurrently. Emphasis will be placed on skills and tools necessary for the analysis and interpretation of geographic data and meteorological phenomenon including conversion from SI units to US customary units and conversions between map scales. Contour maps, charts, graphs, satellite images, tectonic processes and earth-sun relations will be analyzed through practical exercises and data analysis. Virtual field trips, educational videos and the class Canvas site supplement the physical geographic concepts conveyed as well as the human impact on earth system thresholds. Student must be enrolled in Geog. 1 or successfully completed the course in a prior semester.

Learning Outcomes:

1. Analyze and interpret data displayed on maps, charts, graphs
2. Identify the principles of geographic grids, latitude & longitude
3. Accurately construct maps and topographic profiles
4. Analyze water quality data collected in class using measuring devices

Measure of Proficiency:
A measure of proficiency in each skill will be assessed through weekly labs, one final and a  water quality  presentation.

Methods:
Students will complete weekly laboratory exercises that require problem solving, accurate observations, construction and interpretation of charts and maps, recording and analysis of spatial information, as well as synthesis and analysis of water quality data collected at Lake Merritt and the Laney estuary. Explanations, demonstrations and instruction will be provided first and thereafter students may work in groups while instructor assistance is available. Time permitting, we will watch complementary educational physical geography videos.

**GRADING AND EVALUATION:
Attendance** and **Participation** in lab class with completion of all labs:  20 lab deliverables each worth 100 points so = 2000

Lab Quiz           =100

Lab Report-      =100

Final Exam-      =100

Total                =2000 points

**GRADING:
A = 90-100% (1350 points+), B = 80-89% (1200 points+), C = 70-79% (1050 points+), D =60-69% (900 points+), F <60% (<900 points)**

**Laney College does not discriminate on the basis of age, race, religion, color, gender identity, gender expression, sexual orientation, ancestry, citizenship, national origin, military or veteran status, disability, marital status, pregnancy, medical condition, and immigration status.**

**TIMELINE** – SUBJECT TO CHANGE

INTRODUCTION VIDEO.

Module 1 -WEEK 1 - JAN. 26, 2021

                        Metric Conversion Instructions

                        Metric Conversions Part 1                 - Deliverable

                        Part 2 Exercises.                                 - Deliverable

Module 2 -WEEK 2- FEB. 2 Latitude & Longitude Mapping

                       Map Instruction Part 1.

                       Map Help.

                       WORLD MAP.                                   - Deliverable

                       Latitude & Longitude.

                       HOW TO CALCULATE TIME.

                       Time Help.

                       MAPPING & Time Zones.                 - Deliverable

Module 3 - FEB. 9 - Map Projections

                      Map Projections Exercises.                - Deliverable

Module 4 - FEB. 16- ISOLINES-

                     Isoline/ Topographic Lines Exercises.  - Deliverable

                     Map Scale.                                             - Deliverable ( skip page 4 )

Module 5 - FEB. 23 - VIRTUAL FIELD TRIP TO EMERYVILLE WASTE WATER TREATMENT PLANT

                     Details to follow-                                - Deliverable

Module 6 - MAR. 2  - Earth-Sun Relationships-Seasons

                     Earth Sun Relationships.                    - Deliverable

Module 7 - MAR. 9 - Solar Angle/Analemma

                     Solar Angle.                                        - Deliverable

Module 8- MAR. 16 - More Solar Angle Exercises

                     Insolation.                                           - Deliverable

Module 9 - MAR. 23 - Temperature Patterns

                        Temperature Patterns.                     - Deliverable

**SPRING RECESS - MAR. 30**

QUIZ

Module 10- APR. 6  - QUIZ                                       - Deliverable

Module 11 -  APR. 10 - Video Review- see module for web link          - Deliverable

                        Saving SF Bay; A Unique Estuary; Discovering SF Bay; Restoring SF Bay; An Invaded Estuary; Threats to SF Bay; After the Gold Rush

                        Write a brief review of each segment and add it to a paper about Saving the Bay, submit online to Mrauzon@peralta.edu.

Module 12 - APR. 13 -WATER IMPACTS  - Deliverable

https://docs.google.com/document/d/1uZtjhCjr2bKKRM7i7eFUMhvQz87fP2calmc142GM7Xs/edit?usp=sharing

el nino

[https://docs.google.com/document/d/1TkiHniUJ3jJcAUW8U0QnTKtf02KvWtgUCYzhnlvfP\_M/edit?usp=sharing (Links to an external site.)](https://docs.google.com/document/d/1TkiHniUJ3jJcAUW8U0QnTKtf02KvWtgUCYzhnlvfP_M/edit?usp=sharing)

Module 13- APR. 20 - Mountain Climates.

                        Atmospheric Pressure.                        - Deliverable

                        Atmospheric Processes.                      - Deliverable

Module 14 -  APR. 27 –Earthquakes

                                       Mid-level Cyclones.               - Deliverable

                                       Plate Tectonics.                      - Deliverable

Module 15- MAY  4  -    LAB REPORT DATA SET  Lab Report Discussion- Form Teams

Module 16 - MAY. 11 -  FINISH UP ALL WORK

Module 17 -  MAY 18 -  FINAL PROJECT  - LAB REPORT  - Deliverable